CATS
CAPITOL AREA TIMEX/SINCLAIR USERS GROUP

NEWSLETTER

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INSIDE THIS ISSUE

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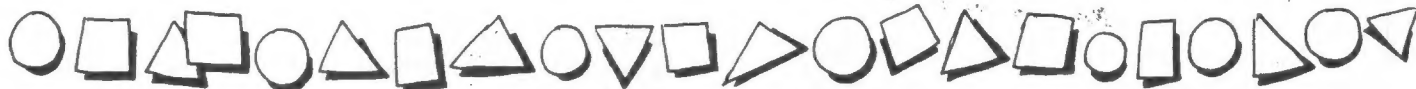
PRESIDENTIAL RAMBLINGS

This May brings an end to the current term of the CATS officers. It is now time to elect officers to serve for the upcoming year. Please put some thought into activities that have gone on in the past year, and those activities that you feel should have gone on. Think about who YOU feel would do the best job in each of the positions of responsibility in the CATS hierarchy.

We need your help in the planning process the for next year of CATS life.

The QL motherboards and parts are still enroute from England at this writing. They should be available by the May meeting. I have sent off artwork for the QL battery backed clock circuit and the properly decoded ROM board. I hope to have boards by the June meeting.

I have received the 2068 Non-Volatile Ram board Kits. There are 200 boards, and they will add up to 120K of RAM in the Dock and Exrom Banks. This board is MUCH simplified over the previous 32K NVM board that we had in the past. It takes about a half an hour to build, rather than the 2 hours that the old board required. Get in touch with myself or Tom Woods if this product interests you.

There are several people from this area that are going to the "Fest," so I expect to have a wide variety of reports of the proceedings of the Second Annual Timex/Sinclair Computerfest. We will be giving thought about planning an East coast Computerfest next. I think we are organized enough to pull one together. Any Comments?

I would like to thank Hank, John, the Fishers, the Curnutts and especially Ruth for their help and devotion to the CATS cause in the last year.   Tom Bent

EDITOR'S CORNER

Computerfest

The 2nd Annual T/S Computerfest will be history by the time you read this, but it will be sure to dominate the conversation at our upcoming meeting. CATS was there with a booth in the User's Group Area, selling newsletters individually and by subscription, soliciting new members, and disseminating information about our growing 2068 software library.

2068 Library

More than a MEGABYTE of new public domain 2068 and Spectrum software has come into my hands during the last month, and I have been hard-pressed to find time to sift through it all. Much of this has been in response to a blurb that we put in the "For Your Support" column of the last issue of SyncWare News. I can guarantee that there will be several new and exciting volumes of the library coming in the near future, with something of interest for everyone, including games, text and graphic adventures, utilities, demos, educational software, and more! By the way, I brought 10 copies of Volume 6 & 7 to last month's meeting and they got snapped up like hamburger in a pirahna tank. I will bring at least 10 more to the next meeting, but if you want to be sure that you get one, call me at home (301-674-8560) and RESERVE a copy! If I am not home (typical), leave a message with my wife Dana.

New Columnist

With this issue Vernon Smith comes online with a regular column for the QL. We still need someone to take on columns for the 2068/Spectrum and the 1000. Come on -- don't let Vernon hog all the limelight! Here is your chance to break into print! And of course, we are always appreciative of those of you who can fire off an "occaisional" article or send in a program or clipping.

March/April CATS Sessions

Winter CATS meetings continued at their breakneck pace in March and April.

On March 14, DAVID MICHAEL ROTHMAN, the Compuserve Sysop for the Sinclair users, brought the group the latest information on phone numbers to be using and services to expect.

DAVID, newly-married, came again from distant Gaithersburg to bring us the official word on Compuserve, its options, its data library, and its conferencing abilities. Soon we are going to have to provide him a phone line and a computer projector so that he can maximize his time with CATS.

In April, among other items bantered about concerning the QL, TOM BENT presented a demo on the new version of the TASKMASTER software. It has a file handler, an internal hand-calculator, reset capabilities, a serial buffer, and multi-tasking.

As the ultimate tour de demo, MARK FISHER connected his well-worn 2068 (cleverly hidden inside the case of a dumb terminal) to Tom's QL. Mark explained the RS-232 interface he more or less found and used, and described clearly the way the RS-232 communications protocol works.

After the two were linked, Mark transmitted a command to the QL, displayed it, and then had it executed!

There was a five-minute SO (standing ovation).

MACROLIFE

As with most life programs Macrolife is a computer simulation of the birth, growth and death cycle of a colony on cells living on a grid. The difference lies in the size of the grid. Macrolife uses a 256 x 192 grid compared with the usual 32 x 24 sized grid. The effect is a series of interesting and intricate patterns.

The basic premise for the program is rather straight forward. Each pixel represents a square on the grid. The square may either be occupied by only one cell or empty. This initial configuration is called generation zero. The successive generations are plotted according to the number of neighbours each cell has. If a cell has either two or three neighbours it will live. Any less or any more and the cell dies. New cells will be born if an empty square has exactly three neighbouring cells.

The program will run on either a Spectrum or a TS2068 with Spectrum emulator. The core of the program lies in lines 100 - 150, 1000 - 9121. The remaining portion loads a number of initial configurations but you are encouraged to try your own.

The program is designed to wrap around both top to bottom and right to left. To disable the wrap function add the line;

```
1005 INVERSE 1:PLOT 0,0:DRAW 255,0:DRAW 0,175:DRAW -255,0:DRAW 0,-175:INVERSE 0
```

The machine code is loaded in starting at address 32768 and is 169 bytes long. A disassembled version of the code can be seen in Toni Baker's Macro-life article, (ZX Computing, Oct/86), from which this program was adapted.

```
1 CLS : GO TO 100
5 PRINT AT 4,0;"Welcome to a
simulation of life."
10 PRINT AT 7,2;"Included are
a number of "
15 PRINT AT 8,2;"programed sta
rts as well as";TAB 2;"a random
start. You are";TAB 2;"encou
raged to program your"
17 PRINT TAB 2;"own intial co
nfigurations."
20 PRINT #1;"ENTER to continue
"
22 PAUSE 0
25 CLS
30 PRINT AT 2,6;"INITIAL CONFI
GURATION"
32 PRINT AT 5,8;"A-----Square"
34 PRINT 'TAB 8;"B-----Cross"
36 PRINT 'TAB 8;"C-----Circle"
38 PRINT 'TAB 8;"D-----Rays"
40 PRINT 'TAB 8;"E-----Grid"
42 PRINT 'TAB 8;"F-----Frets"
44 PRINT 'TAB 8;"G-----Randon"
46 PRINT AT 21,1;"Press key fo
r desired choice."
48 LET i=CODE INKEY$: IF i<97
OR i>103 THEN GO TO 46
50 IF INKEY$<>"" THEN GO TO 50
52 CLS : GO TO i*5
100 CLEAR 32767: LET a$="": RES
TORE 9100
110 FOR i=0 TO 21: READ d$
120 LET a$=a$+d$: NEXT i
130 LET address=32768: FOR i=1
TO LEN a$-1 STEP 2
140 POKE address+INT ((i-1)/2),
(CODE a$(i)-(48 AND CODE a$(i)<5
8)-(55 AND CODE a$(i)>64))*16+CO
DE a$(i+1)-(48 AND CODE a$(i+1)<
58)-(55 AND CODE a$(i+1)>64)
150 NEXT i
155 GO TO 5
485 PLOT 88,48: DRAW 80,0: DRAW
0,80: DRAW -80,0: DRAW 0,-80
487 GO TO 1000
490 FOR i=USR "a" TO USR "a"+7:
POKE i,128: NEXT i
491 PRINT #0;AT 0,16;"⌐";TAB 16
;"⌐"
492 PLOT 0,80: DRAW 255,0: PLOT
128,0: DRAW 0,175
493 GO TO 1000
495 FOR i=10 TO 80 STEP 10: CIR
CLE 128,80,i: NEXT i
497 GO TO 1000
500 OVER 1: FOR i=-128 TO 127 S
TEP 3
501 PLOT 128,0: DRAW i,175: NEX
T i: OVER 0
502 GO TO 1000
505 FOR i=USR "a" TO USR "a"+6:
POKE i,1: NEXT i
506 POKE i,255: PRINT #0;AT 0,0
;
507 FOR i=1 TO 704
508 PRINT "⌐";: IF i<65 THEN PR
INT #0;"⌐";
509 NEXT i: GO TO 1000
510 FOR i=60 TO 140 STEP 20: PL
OT 0,i: DRAW 255,0: NEXT i
511 FOR i=16 TO 256 STEP 32: PL
OT i,60: DRAW 0,79: NEXT i
512 GO TO 1000
515 FOR i=1 TO 4: LET x=INT (RN
D*30): LET y=INT (RND*20): PRINT
AT x,y;"█████"
516 NEXT i
517 GO TO 1000
1000 RANDOMIZE USR 32845
1010 GO TO 1000
9100 DATA "257CF6F83C20417D"
9101 DATA "D6206F7C3805C608"
9102 DATA "671835FEBF203126"
9103 DATA "D7182D247CE60720"
9104 DATA "277DC6206F7C3805"
9105 DATA "D60867181BFED820"
9106 DATA "1726C01813CB0130"
9107 DATA "0F7D3D1806CB0930"
9108 DATA "077D3CADE61FAD6F"
9109 DATA "79A6C804C9210040"
9110 DATA "1100C00010018D5ED"
9111 DATA "B0E10E800600C5E5"
9112 DATA "CD0080CD3D80CD1B"
9113 DATA "80CD1B80CD3580CD"
9114 DATA "3580CD0080CD0080"
9115 DATA "78E1C1C8BCFE0238"
9116 DATA "0CFE043008FE0320"
9117 DATA "0879B61803792FA6"
9118 DATA "77CBFCCB0930C5CD"
9119 DATA "41807DE61F20BDCD"
9120 DATA "1B807CEEC0B520B4"
9121 DATA "C9"
```

QL on the QT
by Vernon Smith

The other night John Riley asked me to write a monthly column on the QL. With the group purchase of these machines, I can see where a column is needed, but why me? Then I figured it out, John had correctly discerned that, if I could learn to use the machine, anyone could. Thankfully, he said I could write on any subject that I wished, so each month I'll try to give you some tips or review some of the new software and hardware offerings that are coming on the market.

Once you become a serious QL user, you will quickly realize two things, you need more memory and to rely on microdrives is risky. With the 512K RAM expansions so cheap, don't settle for less. You will never have to worry about running out of memeory or writing to _temp files. This is probably the easiest peripheral to use, just plug it into the left hand expansion port and go. Now a word about microdrives. If you're into miniaturization, stick with them; if not, get disk drives. In the long run they will be cheaper. If you bought an Aerco system, you will have disk drives on-hand; however, most of the drives shipped by Aerco were manufactured by Remex, so they will require a "slight" modification. Drop them out of a two story or higher window and then replace them with TEAC or Mitsubishi drives. Consider buying quad density drives since they double the storage capacity, use the standard 5 1/4" double sided double density disk, and are about the same price as the double-sided disk drives. Computer Shopper Magazine is your best source for drives since they have ads from mail order houses all over the US. AERCO owners can reuse the drive case and add a 34 pin connector just before the existing edge connector. You will also need a disk interface. Here you have a choice between an interface that just runs the disks and one that has a bit more versatility. An example of the first type would be the Cumana I/F while the I/Fs from Technology Research are examples of the second. They offer one with a parallel printer port and another with the printer port and 128K of additional memeory. In the case of the latter unit, if you already have 512K installed, the 128K is of no use and has to be disabled. If you have a Centronics parallel printer and have not purchased the serial to parallel adapter cable, then you might consider the interface with just the printer port. These I/Fs also plug into the expansion port or into the 512K expansion board if it is installed. You might be thinking, why don't they put this all into one unit? Well, Sandy PCP in England has done just that. The unit is the same size as the Cumana I/F, in fact it uses the same cover, with both the disk and printer ports side-by-side at the end. It is called the Super-Q Board and it includes a ram disk driver and the Tony Tebby Toolkit II extensions. All this for slightly less than $400! If you haven't started expanding your QL, this might be something to think about; however, be sure the Super-Q board you buy has been modified to run on the American QL. Mine wasn't and I had to send it back for modifications.

Finally, those of you that have a modem should get a Modaptor and the associated Q-Code software and get involved in telecommunications. In the past, I was afraid that I'd spend a great deal of money just learning how to get around once I was connected to the bulletin board. I finally did it last month and I had a ball. Thanks to Dave Rothman, I found that the label on my Modaptor was upside down. After setting the switches correctly, everything was smooth sailing. In Q-Code the interface settings are: ON-LINE 300 MARK SER2I. Set up your password strings for: 1. USER ID (with "VT52" at the end), 2.

PASSWORD, and 3. GO CLUB. Put a Carriage Return (CTRL M) at the end of each string. I know a lot of Compuserve kits were handed out at the telecommunications meeting, so let's get with the program. You get 3 free hours and then each additional non-prime time hour is $6.25, not at all expensive. Try Wednesday nights at 10:00 PM, when the Timex Sinclair community comes together.

In the next few months, I'll review some of the "front-end" programs, mice, and some of the user group and QL publications that I think might be of interest to you. If you have something you want covered, let me know.

T/S Horizons Still Lives!!

A couple of months ago, the CATS newsletter reprinted a list of currently available Sinclair resources. The list said T-S HORIZONS magazine was "out-of-business".

That was not quite correct.

In December issue no. 21, publisher Rick Duncan announced he is departing the magazine market but will continue to publish through 1987 or through issue no. 29, whichever occurs later.

He stated he does not want to leave the Sinclair scene the way several other publications have, with unpleasant feelings all around.

Subscriptions are still being accepted through issue 29, at the rate of $1.80 per issue. All back issues are available, as well. Order from: TSH, 2002 Summit St., Portsmouth, OH, 45662.

T-S HORIZONS will be missed by many. Its objective, largely realized, was to provide a quality publication at an affordable price. It was never advertised as a regular periodical, but it has never skipped a sequentially numbered issue, no matter when it may have arrived.

So rest well, little Sinclair magazine, your journey is almost over.

CHD

Another (QL) Tip

For those of you who would like to expend a little effort, a trip to the tobacconist is in store for you , unless you are in the habit of smoking some of the rather exotic, imported cigars. You may wonder what cigars have to do with QLs and the answer is that the boxes they come in (cigars,not QLs) can serve as an elegant solution to the problem of those ever-roaming, ever-underfoot microdrive cartridges.

Most cigar stores replenish their display stands weekly and the boxes that have been emptied are discarded. Usually, they give away the common boxes and they normally sell the mahogany boxes, those equipped with brass hinges and clasps to hold the lids closed. The imprinted names can be sanded off the wood if desired. The going price for the box is usually $1.

I got hold of a "Pleiades" brand box, approximately 13.5 × 20.5 × 5 cm. (5 × 8 × 2 in), in which the cartridges cannot be placed upright, but must be slanted somewhat to allow top to close. The inside width is 11 cm. (4+ in.) which allows three cartridges to be placed side-by-side.

For separators, I used some approx. 2 mm. (1/16 in.) thick Plexiglass which I had on hand to cut to a snug fit across the box. The heighth of the insert is such that when placed in the box at the proper angle to support the cartridge properly, the edge is approximately flush with the top of the open box. You can determine the heighth by trial and error with a piece of cardboard. You need not go the Plexi route and could probably use hardboard or some similar cardboard material. Glue separators in place at the proper angle and spacing; sand and finish box, if desired. I have used about 1/2 of the space and have room for 21 cartridges.

Have fun!

Manuel Quintero

Resources and Products for the QL
By: N.A. Pashtoon

This is a continuation of an article by Mr. Pashtoon that was begun is the April issue. Our most profound thanks to him for compiling all of this information for us! NOTE: The prices noted here are several months old and subject to change. Use them for comparison only, and don't buy anything without checking first to see if a group buy through CATS is upcoming!

Utilities

	A	B	C	D	E	F	G	H
CLONEY	$9							
Copy Cartg.				$25				$35
Copymate		$25						
QL Monitor	$32	$28		$20	$26	$21	$30	
QL Supermon. Disass.	$30							
Assembler W-bnch			$40	$35	$39			
The Editor		$33						
Screen Dump				$10				
TasCopy QL							$20	
Supertool Kit II		$55		$50	$53		$55	$55
Nucleon Toolkit		$35		$33	$40			$40
WD Utilities			$17	$15				
QL Toolkit			$22					
I.C.E.		$30		$32	$40		$40	$40
I.C.E. Choice		$23		$22			$22	$25
I.C.E. Art		$18					$20	
I.C.E. Toolkit		$18		$17			$16	
I.C.E. Compandium							$86	
Taskmaster		$40						
QL Switch					$22			
QFlash		$26		Call				
JOSS		$26	$28	$25				
Cartridge Doctor		$23	$22	$20	$22		$22	
Terminal Emulator			$23		$24		$30	$30
RAM Disk					$17		$20	$20
Key Define							$16	
PC Import					$30	$40		

CAD and Graphics

	A	B	C	D	E	F	G	H
Design Board II	$45				$50			
Super Sprite Gen.	$24	$30		$25				
TechniQL		$60	$70	$63	$70		$70	
QL Paint		$35			$40		$40	
Peintre		$34	$35	$29	$35			$35
Conept 3D		$35	$40	$37			$38	$40
Giga Paint			$50		$50			
GraphiQL			$45	$41				
Electro CAD					$70			
Q Draw								$22
Paint Master								
PCB Designer 1		$150						
PCB Designer 2		$150						

BOOKS

Title	List Price	Disc. Price
Super Basic Definitive Handbook	19.95	9.95
QDOS Companion	16.95	9.95/8.95
QL Advanced User Guide	17.95	9.95
QL Assembly Laguage Programming	15.95	9.95
Advanced QL Machine Language	14.95	9.95
Inside the QL (Hardware Guidebook)	16.95	9.95/8.95
Artificial Intelligence on the QL	15.95	9.95/8.95
Developing Applications on the QL	15.95	9.95
Mathematics on the QL	15.95	9.95/8.95
Intro. to Simulation Techniques	14.95	9.95/8.95
The Working QL	15.95	9.95/8.95
QL Adventures	14.95	9.95/8.95
QUILL, EASEL, ARCHIVE and ABACUS on the QL	14.95	9.95
Tim Hartnell's QL Handbook	12.95	9.95
Exploring Artificial Intelligence on your QL	14.95	9.95
Tim Hartnell's QL Games Compendium	11.95	9.95
Exploring the QL	9.95	7.95
Quantum Theory Programming Guide	12.95	9.95
The QL Companion (Constructs)	12.95	9.95/8.95
QL Computing (Structures)	13.95	9.95/8.95
QL SuperBASIC (Stages)	12.95	9.95/8.95
QL Gamesmaster	12.95	9.95
Illustrating SuperBASIC on the QL	12.95	9.95
Practical Guide to QL Graphics and Sound	13.95	9.95
Good Programming with QL SuperBASIC	13.95	9.95
Word Processing with QL QUILL	13.95	9.95/8.95
QL QUILL Handbook	14.95	9.95
The QUILL User's Reference Manual	24.95	14.95/9.95
The ABACUS User's " "	24.95	14.95/9.95
The ARCHIVE " " "	24.95	14.95/9.95
Word Processing with the QL	11.95	9.95
Introd. to SuperBASIC on the QL	11.95	9.95/8.95
Advanced Programming on the QL	11.95	9.95/8.95
Using Graphics on the QL	11.95	9.95
Database Management on the QL	11.95	9.95/8.95
Desktop Computing with the QL	11.95	9.95/8.95
Profiting from the QL	11.95	9.95
Making the Most of the QL	11.95	9.95/8.95
Machine Code Programming on the QL	11.95	9.95/8.95
QL Tecchnical Guide (QDOS Reference Manual)	39.95	29.95/25.95
QL Service Manual (by EMI)	25.95	19.95

Note: The lowest price indicated after the discounted price is from a recent brochure (effective Jan. 15) from Sharp's.

Games

	A	B	C	D	E	F	G	H
Backgammon	$20						$20	
Arcadia	$15							
QL Caverns	$20	$19		$25	$12		$20	$20
QL Chess	$30	$28		$28	$30		$25	$25
Dragon Hold	$27			$28	$29			$30
Matchpoint	$25	$23		$27			$22	$22
Tycoon	$28							
Super Astrologer	$32	$30					$40	
Biorhythms	$25							
QL Flight		$28					$35	$30
Droidzone		$20						
Zkull		$23		$21			$28	$25
Knight Flight		$30		$20			$22	$22
Karate	$20	$18	$25	$22				
Area Radar Cont.		$20			$19		$20	
Vroom		$25	$30	$23				$20
Aquanaut		$26		$26				
Citadel		$18						
Lands of Havoc		$26						$35
BJ The Return	$15	$19		$20			$19	$20
3-D Slime	•	$19		$20	$19		$20	
War in the East (all 3)		$58	$56					
Wanderer		$32	$40	$33	$33			$50
Blocklands		$20						
West		$23		$21			$28	$30
QL Hopper		$23					$25	
Spook	$15	$18						
Othello		$25						
Fictionary		$18						
The King		$26		$25				
BJ in 3-D Land		$19					$20	
Squadrons		$25	$27					
Mortville's Manor			$33					
Lost Pharaoh			$21					
QL Hyperdrive		$23			$19		$22	$27
Exec. Trivia Qlue						$18		
Blast Buggy							$20	$20
Bounder								$16
Zapper								$16
Bridge Player II								$30
Computer Scrabble								$30
Quasimodo								
Star Guard								
Space Paranoids								
QL Draw Poker	$15							

Vendor Addresses

In the product directories presentes the last few pages, the vendors were designated by alphabetical characters. In what to follow the alphabetical designation of each vendor, as well as their addressess and phone numbers are provided.

A

QUANTUM COMPUTING
P.O. BOX 1280
DOVER, N.J. 07801
201 -328-8840

B

Sharp's Inc.
Rt. 10, Box 459
Mechanicsville, Va. 23111
804 -746-1664 (9:00 am-4:30pm)
804 -730-9697 (5:00pm-11:00pm EST)
Visa & MC accepted

C

Variety Sales
325 West Jersey St.(2-D)
Elizabeth, N.J. 07202
201 -289-5699

D

C.W. Associates
419 N. Johnson Street
Ada, Ohio   45810
419 -634-4874

E

Russell Electronics
RD 1, Box 539
Centre Hall, Pa. 16828
814 -364-1325 (1pm -6pm EDT)
plastic accepted

F

RMG Enterprises
1419 1/2 7th. Street
Oregon City , OR 97045
503 -655-7484

G

Midwest Micro-Computer Co.
7039 Magnolia Drive
Jenison , Mi. 49428
616 -669-3239 (7pm -10pm EST)

H

Knighted Computers
707 Highland Street
Fulton , N.Y. 13069
315 -593-8219 (inquiries)
1-800-325-7497(orders)
Visa & MC accepted

New member TSU LIN posing a QL question for CATS President TOM BENT.

Uncle Clive the Music Man

CATS Member HAROLD BLACKFORD is now exploring some promising areas of Sinclair technology which are related to composing and performing music.

Many electrical instruments (personal keyboard, synthesizer, organ, guitar, et al.,) come with a 5-pin DIN socket for linking the unit with a MIDI box.

MIDI stands for "Musical Instrument Digital Interface", and was developed to introduce some compatability between instruments and their use of computers.

With the instrument/MIDI/small-computer hookup made, one of a number of software packages can be unleashed which permit composing, performing, editing, or printing the musical work.
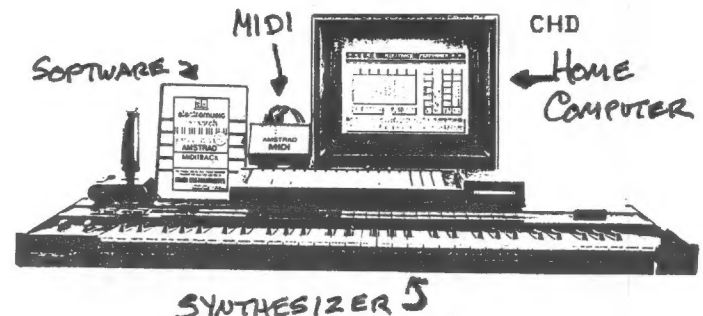
A leader in this field is Electromusic Research (EMR), Essex, G.B., which markets hardware and software for a number of instrument/computer combos.

In the Sinclair arena, the products involve the SPECTRUM computer family exclusively. Since the 2068 bears a genetic resemblance to the SPECTRUM, it might be possible to creatively adopt these products to the US version of the 2068. Using the current music/computer protocols, it would then be possible to compose and hold 20 minutes of music in the memory of a 2068!!

HAROLD BLACKFORD astutely observes that there are many musicians in the metropolitan area who want to get in on computer-controlled music, but do not want to invest a fortune in a paleozoic PC. For them, a QL or 2068 might be an ideal solution.

HAROLD plans to continue pursuing British companies from our side of the Atlantic, looking for something like the QL/MIDI nexus. Dispatches will be passed on as they are received.

VU-CALC AS INVOICE
by Akin Olowofoyeku

Location: Instruction	Location: Instruction			
a1: #f,a,1	o14: 0 (Data from	h8: 0 (no zone)	s15: 2.40	au8: &o8:as8
a1: "Freight -->#g,114	o15: 1.20 (o14 down	i6: "DISCOUNT	s16: 2.95	au12: &o12:as12
b1: "Discount ->#g,t18	o16: 1.40 (this column	i8: 0 (no discount)	s17: 3.65	av6: "TAX (5% MD Res.)
c1:"Save,#s :Load,#l :Print,#q	o17: 1.50 (to s18 may	m1: "-------	s18: 4.25	av12: .05*(au12-au15)*g8
e1: "Acc.# (data as text)	o18: 1.65 (be modified	m2: #r,m1,m2:m12	t18: "DISCNT.	aw6: "FREIGHT
a6: "AKO ENTERPRISES	p14: 10 (for your own	n1: "ITEM #	u15: (au12(p14)	aw12: at15
b6: "1613 DAYTON ROAD	p15: 1.40 (freight, by	n2: "DESCRIPTION	v15: (au12(q14)	ax6: "GRAND TOTAL
c6: "ADELPHI, MD 20783	p16: 1.65 (blanking out	n8: "QUANT.	w15: (au12(r14)	ax12: &au12:aw12-au15
e5: "INVOICE	p17: 1.95 (each value &	n10: "PRICE	x15: (au12(s14)	114: "ORDER
e10: #f,10,r	p19: 2.20 (typing in the	n12: "TOTAL	y15: (au12)s14)	115: "ZONE
e10: "JAN. (or current month)	q14: 25. (new.	o8: 0	u18: .05 (5% , to change	116: #r,115,116:118
e12: #f,12,r	q15: 1.65	p8: #r,c8,p8:as8	v18: .10 (any discount %	a14: "-------
e12: "1986 (or current year)	q16: 2.10	o10: #f,10,$,r	w18: .15 (see note at p16	a15: #r,a14,a15:a18
f1: "-------	q17: 2.40	o10: 0	x18: .20	n14: "over $
f2: #r,f1,f2:f12	q18: 2.90	p10: #r,o10,p10:as10	z15: u15*o15*(h8=1)	n15: #f,15,$,r
g1: "SOLD TO (name, address)	r14: 50	o12: #f,12,$,r	aa15: v15*p15*(h8=1)	n16: #f,16,$,r
g6: "CUST. CODE	r15: 1.95	o12: o8=o10	ab15: w15*q15*(h8=1)	n17: #f,17,$,r
g8: #f,8,i,r	r16: 2.50	p12: #r,o12,p12:as12	ac15: x15*r15*(h8=1)	n18: #f,18,$,r
g8: 0 (Nonres=0, Res=1)	r17: 3.00	at1: "-------	ad15: y15*s15*(h8=1)	n15: "1
g10: "SHIP TO (name, address)	r18: 3.50	at2: #r,at1,at2:at12	ae15: u15*o16*(h8=2)	n16: "2
h6: "ZONE	s14: 100	au6: "SUBTOTAL	af15: v15*p16*(h8=2)	n17: "3
				n18: "4

Column 6:

- ag15: w15*q16*(h8=2)
- ah15: x15*r16*(h8=2)
- ai15: y15*s16*(h8=2)
- aj15: u15*o17*(h8=3)
- ak15: v15*p17*(h8=3)
- al15: w15*q17*(h8=3)
- am15: x15*r17*(h8=3)
- an15: y15*s17*(h8=3)
- ao15: u15*o18*(h8=4)
- ap15: v15*p18*(h8=4)
- aq15: w15*q18*(h9=4)
- ar15: x15*r18*(h8=4)
- as15: y15*s18*(h8=4)
- at15: &z15:as15
- ao17: (au12(q14)*au12*i8*u18
- ap17: (au12(r14)*au12*i8*v18
- aq17: (au12(s14)*au12*i8*w18
- ar17: (au12)s14)*au12*i8*x18 -
- au15: &ac17:ar17
- au14: "DISC.=
- at14: "S & H=

NOTE: You'll need a VU-CALC 2068 program that can print to an 80 column printer. Load the program. Then load Invoice, saved as "intemp". As some people have problems entering programs and getting them to run, I've decided to make tapes available at $6 postpaid. Make check / money order payable to the above address.

ORDER	ZONE 1	ZONE 2	ZONE 3	ZONE 4	DISCNT.
over $ 0	1.20	1.40	1.50	1.65	.05
10	1.40	1.65	1.95	2.20	.10
25	1.65	2.10	2.40	2.90	.15
50	1.95	2.50	3.00	3.50	.20
100	2.40	2.95	3.65	4.25	

Freight -->#g,114
Discount ->#g,t18
Save,#s :Load,#l :Print,#q

```
AKO ENTERPRISES
1613 DAYTON ROAD
ADELPHI, MD 20783

INVOICE                        JAN.  1986
========================================

ACC.# 12310

SOLD TO          CUST.CODE          SHIP TO
Mary Jane        ZONE      1        Mary Jane
352 Anystreet    DISCOUNT           P.O. Box 23
Anytown, MD 11220          1        Anytown, MD 11220
                           1

ITEM# DESCRIPTION    QUANT   PRICE    TOTAL
1231  Scissors         1     15.75    15.75
1341  Spools Tread    10      1.25    12.50
3312  Yarn             5      3.89    19.45
4125  Pattern          2      6.98    13.96
                       0      0.00     0.00
                       0      0.00     0.00
                       ...
                      18              61.66

                    SUBTOTAL          61.66
            S&H = 1.95    TAX (5% MD Res.)   2.62
            DISC.= 9.24   FREIGHT            1.95
                          GRAND TOTAL       56.99
```

## SIMPLE MODEM UPGRADE

### By Ken Abramson

Here are two simple 2050 modem modifications you might wish to consider if you know which end of a soldering iron to hold.

The first circuit is a simple LED (light emitting diode) "LINE FREE" indicator which lights up when nobody is using the telephone line. If the line is in use, the LED will remain dark and you must wait until the "LINE FREE" light comes on before you do your auto-dialing. This handy little LED eliminates interrupting somebody's telephone conversation to find out whether they are finished talking or not. It also allows you to watch the dialing process (the LED pulses on and off).
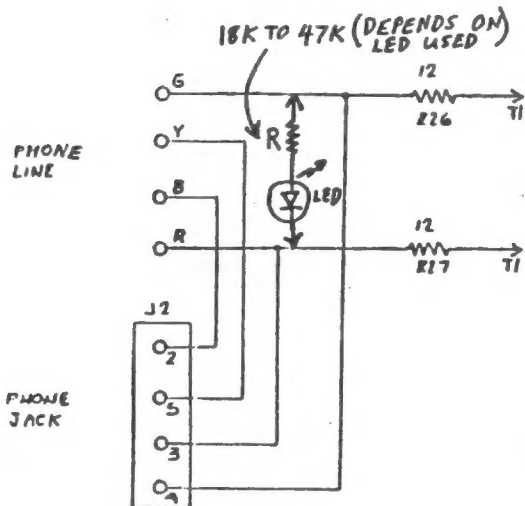


If the LED does not light up, just reverse its leads.

The second circuit is a simple voltage regulator that isolates the computer 9V supply from any stray modem signals that may find their way back into the 9V RAM supply circuit. It also regulates the 9V supply to the LM1458 modem amplifier chip, thus giving increased stability to its output levels.

MODEM
EDGE CONNECTOR
PIN 2, UNDERSIDE
(NEXT TO SLOT)
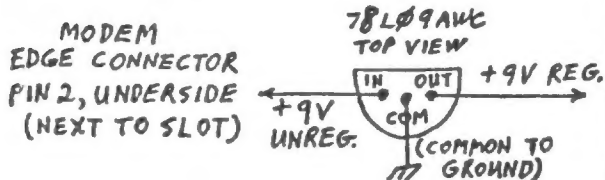


This means that you can RELIABLY use the computer 9V power supply and get rid of that extra 9V modem power pack. Just use a stiff wire to fish an extra wire under the shielded covering of the modem ribbon cable, and connect this new wire to the +9V contact on the modem edge connector (see TS1000 user manual P. 124 or ZX81 manual P. 167 for pinout diagram of edge connector). You can even desolder the modem 9V power supply jack and use it for other projects, if you wish.

Your new 9V line should connect to the POSITIVE trace connection of the 9V power jack.
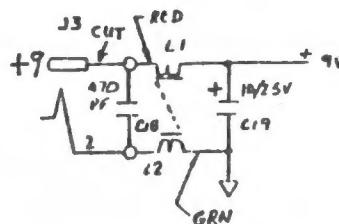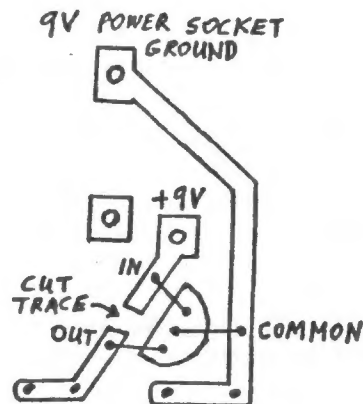


The 78L09AWC mounts on the component side of the modem board through three holes drilled through the traces shown. First, cut the trace that goes from the +9V connection to L1 and C18 (modem schematic diagram). Scrape the remaining trace stubs well before soldering, because they have been coated with an insulating coating. If you dont have the #66 bit, you needn't drill the holes. Just mount the 78L09AWC directly on the trace side of the board (allowing for cabinet clearance) and solder it directly to the surface of the traces.

# BOOK REVIEW

## Database Management on the Sinclair QL

The Sinclair QL Series
Hutchinson & Co. (Publishers) Ltd
by Mike O'Reilly

reviewed by Mark Fisher

Of the suite of Psion programs, Archive is perhaps the most complex. In harnessing the latent power of such a programmable database, a friendly guide to the twists and turns of setting up a comprehensive suite of routines to ease data entry and retrieval is almost a necessity. That's what I hoped for from Database Management on the Sinclair QL.

What I got was a chatty, pleasant guide to the commands offered by ARCHIVE. If this sounds like a perfumed version of the user's manual, you're right. I'm sure there is a need for books like this, as the official manual can tend toward the cryptic at times.

DMotSQ is a trade-sized paperback of 190 pages, with 12 chapters and a glossary. The first five chapters serve as an introduction to the operation of the database, focusing on direct commands. The balance of the book covers the development of programs.

Why am I complaining? I had hoped that this book would actually talk about database management on the Sinclair QL; covering the implications of various ways of linking files, etc. The commands are covered by the official manual already.

My recommendation? A good buy if you didn't get the Sinclair manuals, or if you got hives reading the original TS 1000 manual. If you're planning to catalog your local city library though, you'll need further, and more sophisticated help.

MF

## Zoning Matters

You are entering a world of site and sound; there's a sign post ahead! You have entered "THE ZX ZONE"!!!!

One night as I'm changing channels trying to find something of interest to watch, I pass channel 24, on my way to 26. All of a sudden my mind says "WHAT IN THE @$% WAS THAT?" Back on 24, I saw a computer selling for $69.75 (formerly $204). The computer was being sold with 16 K memory and 3 (count them 3) programs to go with it. By now you must have guessed that it was The TIMEX SINCLAIR 1000!

The Home Shopping Club is now selling old TS. What's so funny to me are the reasons for buying ole TS: I'm in my eighth month, and by the time I figure out how to use it, the baby will be ready to learn!!

Till the next time in The ZX Zone, see you.

Michael Warmick



*** Spectrum/Aerco Disks ***

I have been corresponding with Larry Kenny of Larken Electronics in Canada, and he tells me that he is on the verge of producing a cartiridge board that would be compatible with the Aerco FD-68 disk interface and the Spectrum ROM, and featuring a push-button "snapshot" NMI save! One small and easy mod to the Aerco board would have to be made. More news on this as it becomes available; till then file it in your Almost Too Good To Be True wishbook.

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## May Meeting --
## Sinclair Beyond the Beltway

See a multi-media presentation by the CATS members who attended the Second Annual (and third ever) Sinclair International Computer Fest held in Indianapolis, Indiana three days this May.

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## June Meeting --
## Third Annual

Sinclair Science Scholar Awards recognizing outstanding P.G. Area Science Fair participants who have demonstrated the creative use of computers in their scientific activities.

Upcoming Events

Hwy 410
Library
Hwy 400
Capitol Beltway
B-W Pkwy

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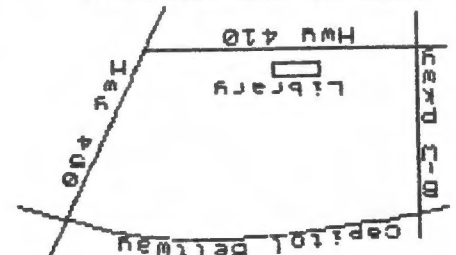
## The Capitol Area Timex / Sinclair Users Group

is a non-profit group devoted to serving the interests of those who own, use, or are interested in the Timex/Sinclair family of computers.

## Officers

| President & contact person | Tom Bent (301)730-7187 |
| Vice-President | Hank Dickson |
| Treasurer | Ruth Fegley |
| Editor | John Riley |
| Printing | Stan Guttenburg |
| Mailing | Bob Curnutt |

Monthly meetings are held from noon to 5 p.m., on the second Saturday of each month, at New Carrollton Branch Public Library.

## Membership Information

Memberships cost $18 per year, are good for 12 months, and include all privileges (access to libraries, group buys, etc.). Newsletter subscription only available for $12 per year.

Submissions of articles and other newsletter material is encouraged – preferably 35 columns wide in hard copy, on QL microdrives or 5 1/4" quad disks (Quill), or 2068 cassette or 5 1/4" DD Aerco disks, in Mscript or TW2000.

## Network Information

Timex SIG on Compuserve: Wednesday night, 10 p.m. Eastern time (GO CLUB).

QZX BBS: (505)522-7081 FIDO net 15, node 6. East Coast dial (703)547-4815 FIDO net 18, node 9.